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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/002,189	12/05/2001	Alexander Beeck	033275-317	3014

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[REDACTED] EXAMINER

[REDACTED] LIN, ING HOUR

ART UNIT	PAPER NUMBER
1725	[REDACTED]

DATE MAILED: 04/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. <b>10/002,189</b>	Applicant(s) <b>Beeck et al</b>
	Examiner <b>Ing-Hour Lin</b>	Art Unit <b>1725</b>



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1)  Responsive to communication(s) filed on Dec 5, 2001

2a)  This action is FINAL.      2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

**Disposition of Claims**

4)  Claim(s) 1-14 is/are pending in the application.

4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-14 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are a)  accepted or b)  objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)  The proposed drawing correction filed on \_\_\_\_\_ is: a)  approved b)  disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.

12)  The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

13)  Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)  All b)  Some\* c)  None of:

1.  Certified copies of the priority documents have been received.
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

14)  Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a)  The translation of the foreign language provisional application has been received.

15)  Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

1)  Notice of References Cited (PTO-892)

2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)  Information Disclosure Statement(s) (PTO-1449) Paper No(s). 6

4)  Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_

5)  Notice of Informal Patent Application (PTO-152)

6)  Other: \_\_\_\_\_

Art Unit: 1725

**Part III DETAILED ACTION**

***Claim Rejections - 35 U.S.C. § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-13 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 is written in generally narrative and indefinite, failing to conform with current U.S. practice because there is a lack of elements in the claimed tool. In claim 9, lines 5 and 7-8, "liquid material" is unclear. Should it be changed to --flowable material-- claimed in claim 9 (line 9) and claim 11 (line 3)?

**103 rejection**

Art Unit: 1725

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-14 are rejected under 35 U.S.C. 103(a) as obvious over DE 19506145 in view of Orton.

DE '145 (abstract and figs. 1-4) teaches the claimed tool and method for casting a shaped part such as wax patterns made of flowable material for producing a turbine (impeller) blade, comprising: assembling several tool blocks (a firsts t of loose parts defining the outer contours and second set of shape-segments (5). Further, DE '145 teaches the use of drive plate and curve plate for controlling displacement and rotation of arrangement so that different cavity geometries are formed. Moreover, DE '145 teaches the use of drive pin (11) and guide pin (12).

DE '145 fails to teach the use of rotational or displaceable insert or inset.

Art Unit: 1725

However, Orton (col. 4, lines 61+) teaches the use of rotational or displaceable insert or inset (core 14) which is allowed to rotate with a range of angles within the tool blocks (dies) for the purpose of shaping the external shape of the shaped part (wax pattern) of a hollow component.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided DE '145 with use of rotational or displaceable insert or inset as taught by Orton in order to effectively cast a shaped part (wax pattern) of a hollow component.

With respect to claim 4, DE '145 in view of Orton fails to teach the use of a particular range of rotational position (angle) for the insert. However, the use of a particular rotational range of  $0.25 - 0.5^\circ$  for the insert would have been obvious to one of ordinary skill in the art at the time the invention was made in order to effectively shaping a casting in a mold cavity.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner

Serial Number: 10/002,189

Page 5

Art Unit: 1725

I.-H. Lin whose telephone number is (703) 308-3442 or Supervisor  
Tom Dunn whose telephone number is (703) 308-3318.

Any inquiry of a general nature or relating to the status of  
this application should be directed to the Group receptionist  
whose telephone number is (703) 308-1148.

I.-H. Lin *f,PK*

April 17, 2003



TOM DUNN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700